

The following Listing of Claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Currently Amended) A pump driving method comprising:
driving a motor based upon a command value ~~using a discharge pressure—discharge flow characteristic,~~
carrying out feedback control of a discharge pressure, and
driving a pump using the motor, ~~and to change the discharge pressure—discharge flow characteristic in correspondence with a power voltage~~
increasing the command value in correspondence with an increasing amount of a detected power source voltage when the detected power source voltage increases.
2. (Cancelled)
3. (Currently Amended) The pump driving method as set forth in claim 1, further comprising
defining a predetermined pressure, flowing amount, and horse power as characteristic values for a predetermined power voltage, and
changing the ~~discharge pressure—discharge flow characteristic~~ command value in correspondence with a detection value of the power voltage.
4. (Currently Amended) A pump driving method comprising:
driving a motor based upon a command value ~~using discharge pressure—discharge flow characteristic,~~
carrying out feedback control of a discharge pressure,
driving a pump using the motor based on whether or not a detected DC voltage of an inverter for supplying a driving voltage to the motor is an ideal DC voltage value of an alternate current power voltage,

changing the ~~discharge pressure—discharge flow characteristic~~ command value for the detected DC voltage upon judging that the detected DC voltage is the ideal DC voltage value of the alternate current power voltage, and

maintaining a ~~changed discharge pressure—discharge flow characteristic~~ the last changed command value upon judging that the detected DC voltage is not the ideal DC voltage value of the alternate current power voltage and ~~when just previously judged the DC voltage was the ideal DC voltage value of the alternate current power voltage.~~

5. (Currently Amended) The A pump driving method as set forth in claim 4, ~~wherein comprising:~~

driving a motor based upon a command value,
carrying out feedback control of a discharge pressure,
driving a pump using the motor based on whether or not a detected DC voltage of an inverter for supplying a driving voltage to the motor is an ideal DC voltage value of an alternate current power voltage,

changing the command value for the detected DC voltage upon judging that the detected DC voltage is the ideal DC voltage value of the alternate current power voltage, and

~~the maintaining of the changed discharge pressure—discharge flow characteristic is accomplished by maintaining a power voltage value instead the maintaining of the discharge pressure—discharge flow characteristic of when said command value was last changed upon judging that the detected DC voltage is not the ideal DC voltage value of the alternate current power voltage.~~

6. (Currently Amended) A pump driving apparatus comprising:
a motor configured to be driven based upon a command value ~~using a discharge pressure—discharge flow characteristic~~ to feedback control a discharge pressure,
a pump operatively coupled to the motor, and
a characteristic changing section configured to increase the command value in correspondence with an increasing amount of a detected power source voltage when the detected power source voltage increases ~~a characteristic changing section configured to~~

~~change the discharge pressure—discharge flow characteristic in correspondence with a power voltage.~~

7. (Cancelled)

8. (Currently Amended) The pump driving apparatus as set forth in claim 6, wherein

the characteristic changing section is configured to define a predetermined pressure, flowing amount, and horse power as characteristic values for a predetermined power voltage, and to change the ~~discharge pressure—discharge flow characteristic~~ command value in correspondence with a detection value of the power voltage.

9. (Currently Amended) A pump driving apparatus comprising:
a motor configured to be driven based upon a command value ~~using a discharge pressure—discharge flow characteristic~~ to feedback control a discharge pressure,
a pump operatively coupled to the motor, and
~~judgment means for judging~~ section configured to judge whether or not a detected DC voltage of an inverter for supplying a driving voltage to a the motor is an ideal DC voltage value of an alternate current power voltage, configured to change for changing a ~~discharge pressure—discharge flow characteristic~~ the command value for the detected DC voltage ~~when it is judged upon judging~~ that the detected DC voltage is the ideal DC voltage value of the alternate current power voltage, and configured to maintain ~~for maintaining the changed discharge pressure—discharge flow characteristic~~ the last changed said command value upon judging that the detected DC voltage is not the ideal DC voltage value of the alternate current power voltage ~~and when just previously judged the DC voltage was the ideal DC voltage value of the alternate current power voltage.~~

10. (Currently Amended) The A pump driving apparatus as set forth in claim 9, ~~wherein comprising:~~

a motor configured to be driven based upon a command value to feedback control a discharge pressure,

a pump operatively coupled to the motor, and
judgment section configured to judge whether or not a detected DC voltage of an
inverter for supplying a driving voltage to the motor is an ideal DC voltage value of an
alternate current power voltage, configured to change the command value for the detected DC
voltage upon judging that the detected DC voltage is the ideal DC voltage value of the
alternate current power voltage, and configured to maintain a power voltage value of when
said command value was last changed upon judging that the detected DC voltage is not the
ideal DC voltage value of the alternate current power voltage ~~the judgment means maintains a~~
~~power voltage value instead the maintaining of the discharge pressure—discharge flow~~
~~characteristic.~~

11. (New) The pump driving method as set forth in claim 1, further comprising decreasing the command value in correspondence with a decreasing amount of the detected power source voltage when the detected power source voltage decreases.

12. (New) The pump driving method as set forth in claim 4, wherein when a condition is continuing for a period equal to or more than first predetermined period of time in which said motor is driven at a rotational speed equal to or less than a first predetermined value and in which rotation speed change of said motor is equal to or less than a second predetermined value, it is judged that the detected DC voltage is the ideal DC voltage value.

13. (New) The pump driving apparatus as set forth in claim 6, wherein the characteristic changing section is configured to decrease the command value in correspondence with a decreasing amount of the detected power source voltage when the detected power source voltage decreases.

14. (New) The pump driving apparatus as set forth in claim 9, wherein when a condition is continuing for a period equal to or more than first predetermined period of time in which said motor is driven at a rotational speed equal to or less than a first predetermined value and in which rotation speed change of said motor is equal to or less than

Appl. No. 10/534,690
Amendment dated June 5, 2008
Reply to Office Action of February 7, 2008

a second predetermined value, said judgement section judges that the detected DC voltage is the ideal DC voltage.